A. IYENGAR

YOR920010663US1 (GHE)

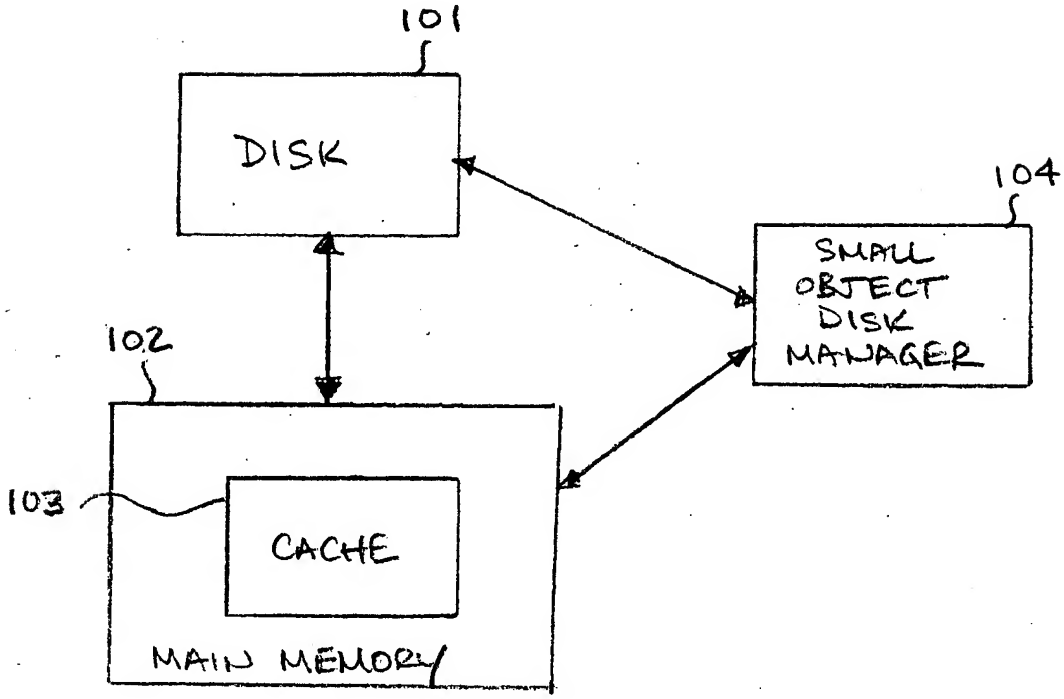


FIG. 1

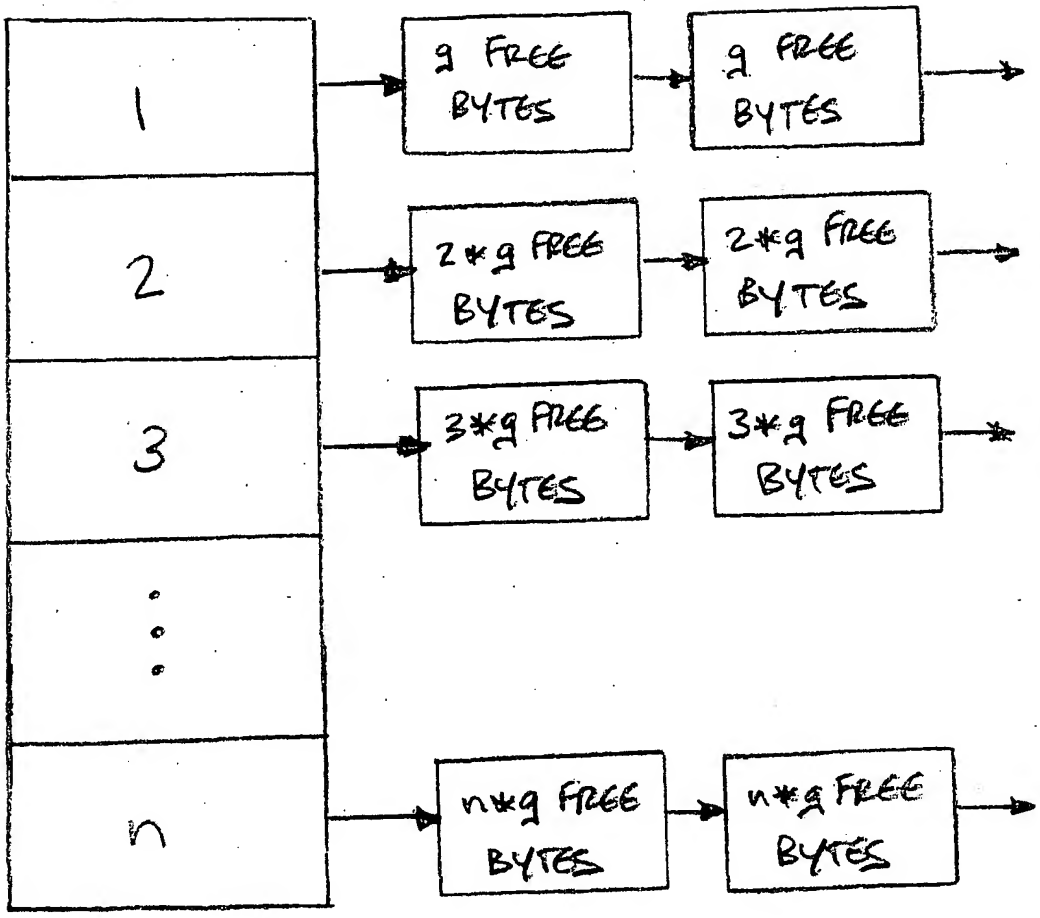

1
2
3
n
q FREE BYTES
q FREE BYTES
2*q FREE BYTES
2*q FREE BYTES
3*q FREE BYTES
3*q FREE BYTES
n*q FREE BYTES
n*q FREE BYTES

FIG. 2

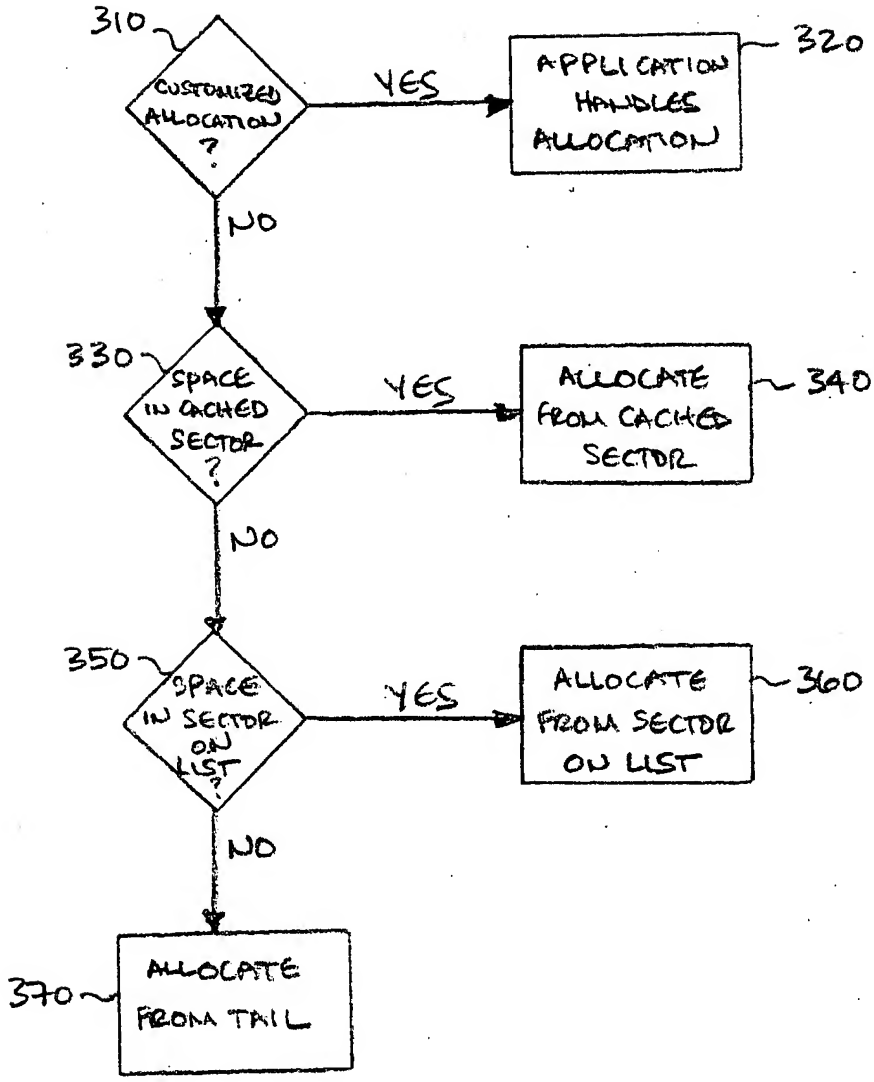
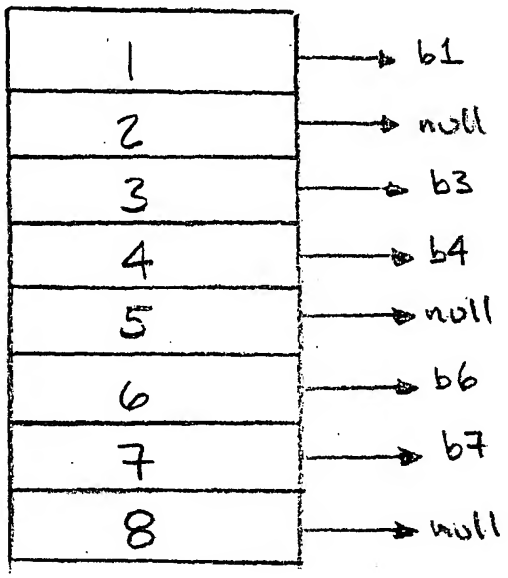

310
CUSTOMIZED ALLOCATION ?
YES
320
APPLICATION HANDLES ALLOCATION
NO
330
SPACE IN CACHED SECTOR ?
YES
340
ALLOCATE FROM CACHED SECTOR
NO
350
SPACE IN SECTOR ON LIST ?
YES
360
ALLOCATE FROM SECTOR ON LIST
NO
370
ALLOCATE FROM A TAIL

FIG. 3

YOR920010663US1

CACHED COPY OF SECTOR



432

TOTAL BYTES ALLOCATED

DELETED OBJECT LIST: 5, 8, 2

FIG. 4

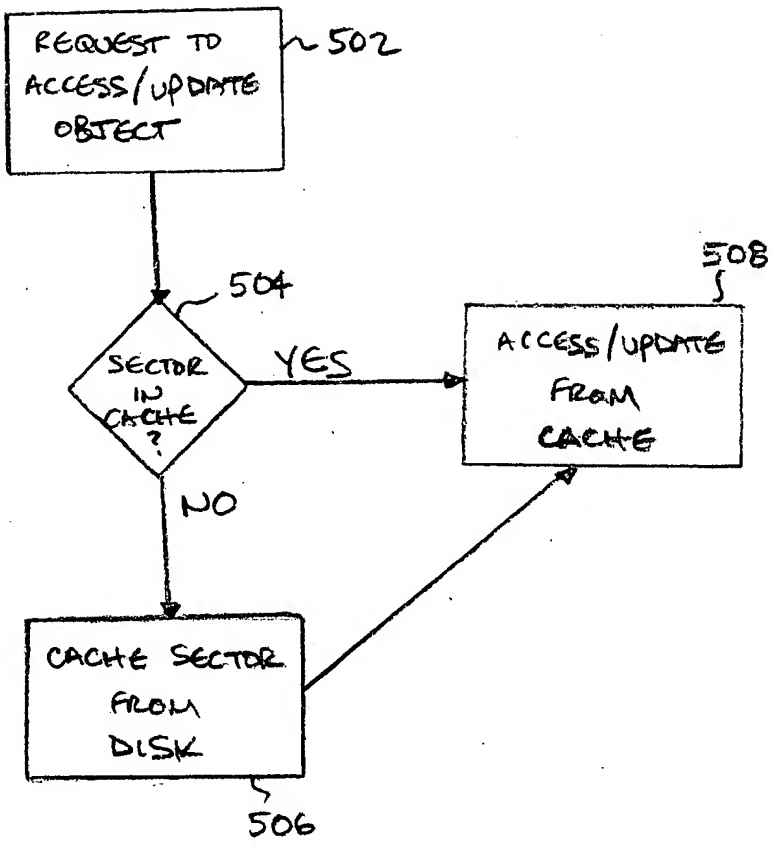

REQUEST TO ACCESS/UPDATE OBJECT
502
504
SECTOR IN CACHE ?
YES
NO
508
ACCESS/UPDATE FROM CACHE
CACHE SECTOR FROM DISK
506

FIG. 5

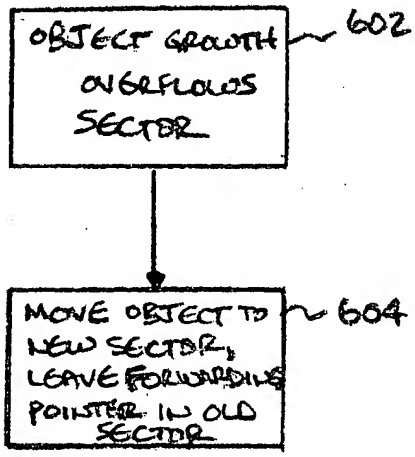

OBJECT GROWTH OVERFLOWS SECTOR
602
MOVE OBJECT TO NEW SECTOR, LEAVE FORWARDING POINTER IN OLD SECTOR
604

FIG. 6

YOR920010663US1

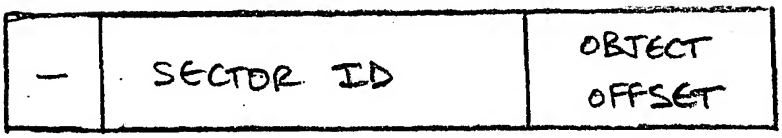


FIG. 7

FIG. 8

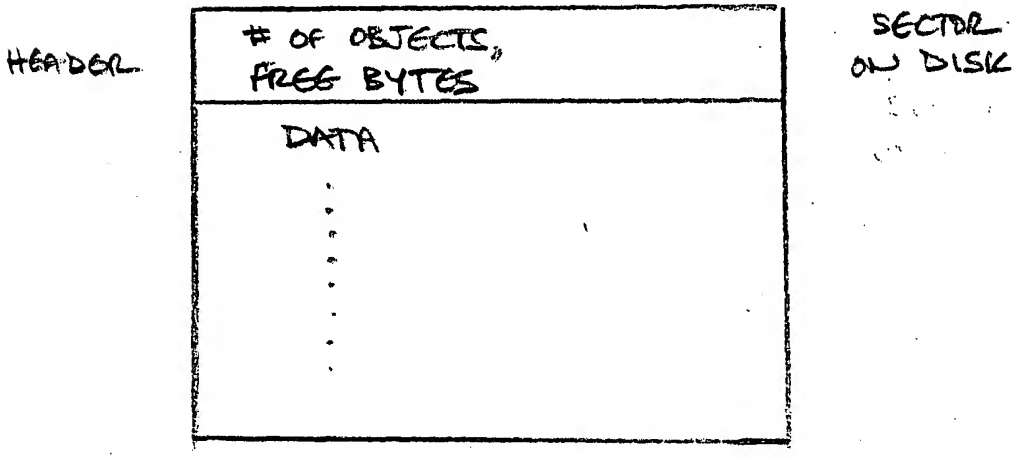


FIG. 9

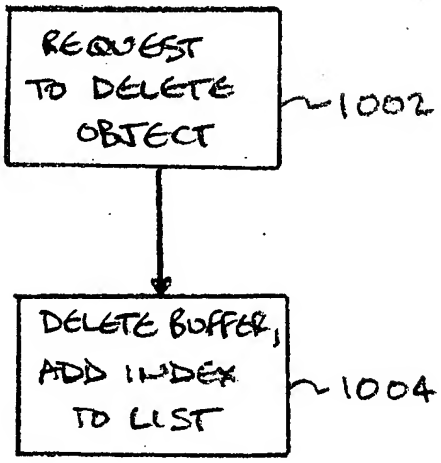

REQUEST TO DELETE OBJECT
1002
DELETE BUFFER, ADD INDEX TO LIST
1004

FIG. 10

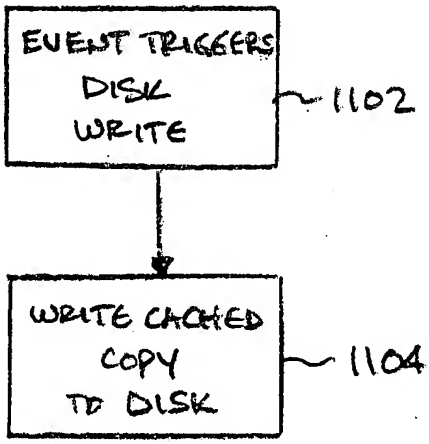

EVENT TRIGGERS DISK WRITE
1102
WRITE CACHED COPY TO DISK
1104

FIG. 11

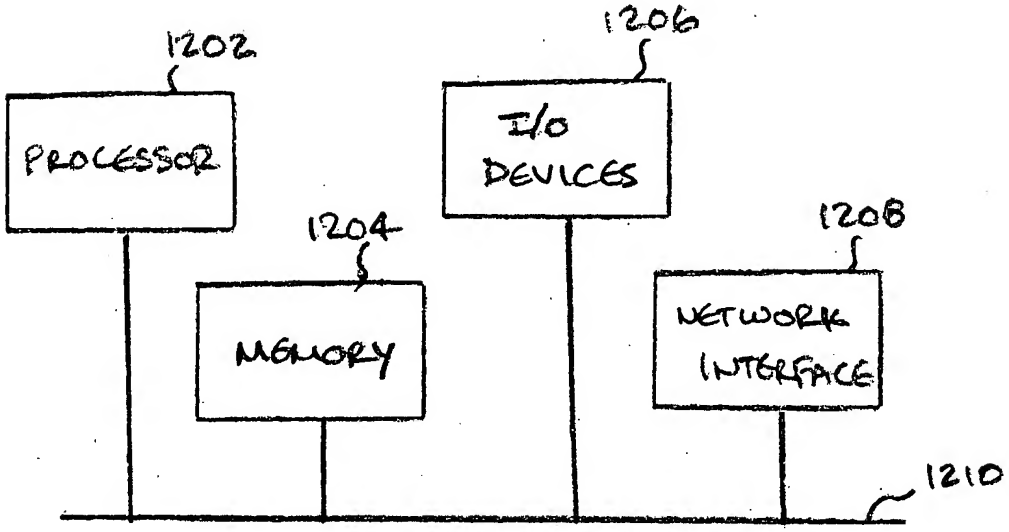

1202
PROCESSOR
1206
I/O DEVICES
1204
MEMORY
1208
NETWORK INTERFACE
1210

FIG. 12